CLAIMS:

1. A system for use in an electric or optical device comprising at least two organic or metallo-organic energy and/or charge variable moieties having conjugated unsaturated bonds, wherein at least one moiety has an energy state different from another of said moieties, characterized in that the system is a H-donor-H-acceptor system comprising at least one H-donor molecule having at least two hydrogen bonding clusters, each cluster comprising at least two groups having formed a hydrogen bond, and at least two H-acceptor molecules, each having at least one hydrogen bonding cluster, each cluster comprising at least two groups having formed a hydrogen bond with the groups of the H-donor molecule, at least one of the H-donor and H-acceptor molecules further comprising one or more of the organic or metallo-organic energy and/or charge variable moieties.

2. The system of claim 1 wherein the hydrogen bond is an N-H-N, O-H-O, or N-H-O bond.

3. The system of claim 1 or 2 comprising at least 2 of the H-donor molecules and at least 3, preferably at least 4, of the H-acceptor molecules.

4. The system of any one of claims 1-3 wherein the organic or metallo-organic energy and/or charge variable moieties are semi-conductors.

5. The system of any one of claims 1-4 wherein the organic or metallo-organic energy and/or charge variable moieties having the lowest energy state is a luminescence dye.

6. The system of any one of claims 1-5 wherein the H-donor and H-acceptor molecules are soluble in a solvent.

7. A system for use in an electric or optical device comprising at least two organic or metallo-organic energy and/or charge variable moieties having conjugated unsaturated bonds, wherein at least one moiety has an energy state different from another of

said moieties, characterized in that the system is a H-donor-H-acceptor system comprising at least one H-donor molecule having at least two hydrogen bonding clusters, each cluster comprising at least two groups having formed a hydrogen bond, and at least two H-acceptor molecules, each having at least one hydrogen bonding cluster, each cluster comprising at least two groups having formed a hydrogen bond with the groups of the H-donor molecule, at least one of the H-donor and H-acceptor molecules further comprising at least an organic or metallo-organic energy and/or charge variable moiety having conjugated unsaturated bonds, wherein at least one of the H-acceptor and H-donor has formed a complex or is bonded to a backbone having a plurality of hydrogen bonding clusters.

8. The system of claim 7 wherein the organic or metallo-organic energy and/or charge variable moieties are semi-conductors.

9. An electronic device having at least two electrodes with at least one layer of the system of any one of claims 1-8 dispersed therein between.

10. The electronic device of claim 9 wherein the device is an electroluminescent device, field-effect transistor, sensor or photovoltaic device.